NUTRITION REVIEWS

VOLUME 19 NUMBERS 1–12

January—December 1961

Published by

THE NUTRITION FOUNDATION, INC.

99 PARK AVENUE NEW YORK 16, N. Y.

Copyright, 1961, Nutrition Foundation, Inc., New York, N. Y., U.S.A.

Editor

FREDRICK J. STARE, PH.D., M.D., Professor of Nutrition, Schools of Medicine and Public Health, Harvard University; Associate in Medicine, Peter Bent Brigham Hospital, Boston. Editorial Office, One Shattuck Street, Boston, Mass.

Assistant Editor

ADELE GLIMM, One Shattuck Street, Boston.

Associate Editors

GEORGE K. DAVIS, PH.D., Department of Animal Husbandry and Nutrition, University of Florida, Gainesville.
GILBERT B. FORBES M.D., Department of Pediatrics, University of Rochester School of Medicine, Rochester.
ALFRED E. HARPER, PHD., Department of Biochemistry, College of Agriculture, University of Wisconsin, Madison.
ROBERT E. HODGES, M.D., Department of Internal Medicine, State University of Iowa, Iowa City.
WILLIAM G. HOEKSTRA, PH.D., Department of Biochemistry, College of Agriculture, University of Wisconsin, Madison.
STANLEY LEVEY, PH.D., Department of Biochemistry and Nutrition, School of Medicine, University of Southern California, Los Angeles.
JAMES F. MEAD, PH.D., Department of Physiological Chemistry, School of Medicine, University of California, Los Angeles.
OLAF MICKELSEN, PH.D., Laboratory of Biochemistry and Nutrition, National Institute of Arthritis and Metabolic Diseases, Bethesda.
WILLIAM J. PYLES, M.D., St. Luke's Hospital, New York.
JAMES H. SHAW, PH.D., Schools of Dental Medicine and Public Health, Harvard University, Boston.
ELMER H. STOTZ, PH.D., Department of Biochemistry, School of Medicine, University of Rochester.
DONALD M. WATKIN, M.D., Organización Panamericana de la Salud, Mexico City.
ROBERT W. WISSLER, PH.D., M.D., Department of Pathology, University of Chicago.

Editorial Committee

WALLACE R. AYKROYD, M.D., University of London
CHARLES S. DAVIDSON, M.D., Boston City Hospital
CONRAD A. ELVEHJEM, PH.D., University of Wisconsin
IAGO GALDSTON, M.D., New York Academy of Medicine
WENDELL H. GRIFFITH, PH.D., University of California
CHARLES GLEN KING, PH.D., Nutrition Foundation
BERWYN F. MATTISON, M.D., American PublicHealth Assn.
L. A. MAYNARD, PH.D., Cornell University
HAZEL STIEBELING, PH.D., Institute of Home Economics, U.S.D.A.
LEROY VORIS, PH.D., National Research Council
WARREN WEAVER, PH.D., Alfred P. Sloan Foundation
JOHN B. YOUMANS, M.D., American Medical Association

Subscriptions should be sent to The Nutrition Foundation, Inc., 99 Park Ave., New York 16, N. Y.
Rate $4.00 per year in the United States and Canada; $4.50 in other countries.
Changes of address should be sent to The Nutrition Foundation.
Second-class postage paid at Baltimore, Md.

Note: Items may be quoted from NUTRITION REVIEWS without special permission. If quotations are made, the editors ask only that credit be given to NUTRITION REVIEWS and that they be made in such a way that the original meaning of the review is preserved.

THE NUTRITION FOUNDATION

The Nutrition Foundation was organized by food and related manufacturers in December, 1941, as a sincere expression of their interest in scientific progress and human health. The basic purposes of the Foundation are: (1) the development of a comprehensive program of fundamental research, providing basic information in the science of nutrition; and (2) the support of educational measures that will assist in making the science of nutrition effective in the lives of present and future generations.

The Foundation functions chiefly through grants-in-aid in support of research in university medical centers where there are facilities for research in the basic sciences and public health.

The entire program is one of public service. The funds of the Foundation are obtained through voluntary contributions from founder and sustaining members and donors. All member contributions are made on a five-year basis so that the Foundation can be assured of support for at least five years in planning its program. Grants are normally made twice each year, to become available on January 1st or July 1st.

Officers of The Nutrition Foundation

JAMES R. KILLIAN, JR., Chairman of the Board of Trustees
CHARLES G. MORTIMER, Chairman, Executive Committee, Board of Trustees
DANIEL F. GERBER, Vice Chairman, Executive Committee, Board of Trustees
CHARLES GLEN KING, President
HORACE L. SIPPLE, Executive Secretary & Treasurer

The Board of Trustees, the governing body of the Foundation, consists of representatives of contributing members and representatives of the general public.

BOARD OF TRUSTEES

W. GARDNER BARKER, *President, Thomas J. Lipton, Inc.*

LEE S. BICKMORE, *President, National Biscuit Company*

*CLAUDE T. BISSELL, *President, University of Toronto*

*F. G. BOUDREAU, *President Milbank Memorial Fund*

WILLIAM T. BRADY, *Chairman, Corn Products Company*

CHARLES S. BRIDGES, *President, Libby, McNeill & Libby*

G. BUITONI, *President, Buitoni Foods Corp.*

*LEROY E. BURNEY, *Vice President for Health Services, Temple University*

THOMAS P. CARNEY, *Vice President, Research, Development & Control, Eli Lilly and Company*

HAROLD W. COMFORT, *President, The Borden Company*

HERBERT C. CORNUELLE, *Pres., Dole Corp.*

W. T. CRIGHTON, *General Manager, Producers Creamery Company*

WESLEY M. DIXON, *Chairman and President, Container Corporation of America*

*LEE A. DUBRIDGE, *President, California Institute of Technology*

JOSEPH EICHBERG, *President, American Lecithin Co., Inc.*

*CONRAD A. ELVEHJEM, *President, University of Wisconsin*

THOMAS C. FOGARTY, *President, Continental Can Co., Inc.*

EDGAR J. FORIO, *Senior Vice President, The Coca-Cola Company*

*CLARENCE FRANCIS, *New York, New York*

T. R. GAMBLE, *President, Pet Milk Company*

DANIEL F. GERBER, *President, Gerber Products Co.; Vice Chairman, Executive Committee, The Nutrition Foundation, Inc.*

GEORGE A. GRAHAM, *Secretary Treasurer, Charles B. Knox Gelatine Co., Inc.*

JOHN A. GRAMMER, *Executive Vice President, Beech-Nut Life Savers, Inc.*

HENRY J. HEINZ, II, *Chairman, H. J. Heinz Co.*

*REV. THEODORE M. HESBURGH, C.S.C., *President, University of Notre Dame*

FRANK C. HILDEBRAND, *Vice President, General Mills, Inc.*

*HERMAN E. HILLEBOE, *Commissioner of Health, State of New York*

S. F. HINKLE, *President, Hershey Chocolate Corporation*

PORTER M. JARVIS, *President, Swift & Company*

*JAMES R. KILLIAN, JR., *Chairman, Massachusetts Institute of Technology, Chairman of Board of Trustees, The Nutrition Foundation, Inc.*

*CHARLES GLEN KING, *President, The Nutrition Foundation, Inc.*

*GRAYSON L. KIRK, *President, Columbia University*

R. NEWTON LAUGHLIN, *President, Continental Baking Co.*

J. PRESTON LEVIS, *Chairman, Owens-Illinois*

DAVID M. LEVITT, *President, DCA Food Industries Inc.*

R. G. LUCKS, *President, California Packing Corp.*

W. F. MCLEAN, *President, Canada Packers, Limited*

WILLIAM H. MCLEAN, *President of Chemical Division, Merck & Co., Inc.*

OSCAR MAYER, *Chairman of the Board, Oscar Mayer & Co.*

CHARLES G. MORTIMER, *Chairman, General Foods Corporation; Chairman, Executive Committee, The Nutrition Foundation, Inc.*

MILTON C. MUMFORD, *President, Lever Brothers Co.*

W. B. MURPHY, *President, Campbell Soup Co.*

WILLIAM F. OLIVER, *President, The American Sugar Refining Company*

W. W. PADDON, *President, Sunshine Biscuits, Inc.*

*THOMAS PARRAN, *University of Pittsburgh*

*MAURICE PATE, *Executive Director, United Nations Childrens Fund*

PHILIP W. PILLSBURY, *Chairman, The Pillsbury Company*

J. G. PLEASANTS, *Vice-President in charge of Research and Development, The Procter & Gamble Company*

LLOYD E. RIGLER, *President, Adolph's, Ltd.*

LYLE C. ROLL, *President, Kellogg Company*

R. T. RYAN, *Executive Vice President, Welch Grape Juice Co., Inc.*

ELBERT M. SHELTON, *Secretary, The Baker Laboratories, Inc.*

VERNON STOUFFER, *President, The Stouffer Corporation*

ROY J. SUND, *President, American Can Company*

THOMAS E. SUNDERLAND, *President, United Fruit Company*

HENRY WEIGL, *President, Standard Brands, Incorporated.*

J. HUBER WETENHALL, *President, National Dairy Products Corporation*

F. R. WILCOX, *General Manager, Sunkist Growers*

E. W. WILSON, *President, Armour & Company*

R. D. L. WIRTH, *President, Red Star Yeast and Products Co.*

H. J. WOLFLISBERG, *President, The Nestle Company, Inc.*

* Representative of the public.

The quality and independence of the research program are safeguarded by referee action and counsel of the Scientific Advisory Committee.

SCIENTIFIC ADVISORY COMMITTEE

EDWARD H. AHRENS, JR.
The Rockefeller Institute

CHARLES H. BEST
University of Toronto

CARL F. CORI
Washington University

FLOYD S. DAFT
U. S. Public Health Service

WILLIAM J. DARBY
Vanderbilt University

PAUL L. DAY
Food & Drug Administration

GRACE A. GOLDSMITH
Tulane University

WENDELL H. GRIFFITH
University of California

A. BAIRD HASTINGS
Scripps Clinic & Research Foundation

ALBERT L. LEHNINGER
The Johns Hopkins School of Medicine

F. N. PETERS
The Quaker Oats Company

NEVIN S. SCRIMSHAW
Massachusetts Institute of Technology

W. H. SEBRELL, JR.
Columbia University

E. NEIGE TODHUNTER
University of Alabama

THOSE WHO SUPPORT THE FOUNDATION

MEMBERS: Adolphs's Ltd., American Can Company, American Home Foods, Inc., American Lecithin Company, Inc., American Sugar Refining Company, Armour & Company, The Baker Laboratories, Inc., Beech-Nut Life Savers, Inc., The Borden Company, Buitoni Foods Corp., California Packing Corp., Campbell Soup Company, Canada Packers Ltd., The Coca-Cola Company, Inc., Container Corp. of America, Continental Baking Co., Inc., Continental Can Co., Inc., Corn Products Company, Dole Corp., General Foods Corp., General Mills, Inc., Gerber Products Company, H. J. Heinz Company, Illinois Canning Company, The Kellogg Company, Chas. B. Knox Gelatine Company, Lever Brothers Company, Libby McNeill & Libby, Eli Lilly & Company, Thomas J. Lipton, Inc., Oscar Mayer & Company, Merck & Company, National Biscuit Company, National Dairy Products Corp., The Nestle Company, Inc., Owens-Illinois, Pet Milk Company, Pillsbury Company, The Proctor & Gamble Co., Producers Creamery Co., The Quaker Oats Company, Red Star Yeast & Products Co., Richmond-Chase Company, Standard Brands Inc., The Stouffer Corp., Sunkist Growers, Sunshine Biscuits, Inc., Swift & Company, United Fruit Co., Welch Grape Juice Co., Inc., Zinsmaster Baking Company

DONATIONS RECEIVED FROM: Abbotts Dairies, American Bakeries Company, Carthage Creamery Company, Eastman Kodak Company, J. H. Filbert, Inc., Hershey Chocolate Corp., Melamine Council, Pepsi Cola Company, Reynolds Metals Company, A. E. Staley Mfg. Co.

FOOD INDUSTRIES ADVISORY COMMITTEE

This committee serves as an advisory group and as a means of maintaining a close relationship between the Foundation's program and the technical staffs of the member firms.

EDWIN J. ABELING
JOHN S. ANDREWS
LAWRENCE ATKIN
W. E. BAIER
DAVID H. BALDWIN
H. A. BARNBY
HOWARD E. BAUMAN
O. K. BEHRENS
THOMAS W. BIGGS
JOHN S. BROD
W. E. BROWNLEE
SIDNEY M. CANTOR
ROBERT H. COTTON
ROBERT N. DUPUIS
A. L. ELDER
GEORGE FELTON
E. I. FRIEDMAN
K. R. HANSON
ARTHUR J. HARRIMAN
H. E. O. HEINEMAN
BURDET HEINEMANN
E. E. HOWE
R. K. HOWER
ARNOLD H. JOHNSON
J. PETER KASS
C. H. KRIEGER
H. L. KRAVITZ
F. D. LONG
ROGER H. LUECK
ORVILLE E. MAY
E. W. MEYER
MARGARET L. MITCHELL
L. B. PARSONS
F. N. PETERS
GERALD REED
R. A. REINECKE
ALAN C. RICHARDSON
HERBERT E. ROBINSON
C. L. RUMBERGER
R. M. SCHAFFNER
E. C. SLOAN
WERNER STERN
ROBERT G. THOMAS
J. J. THOMPSON
WALTER L. THOMPSON
DEE TOURTELLOTTE
RAY WAKEFIELD
MARIE WHITE
R. WITTY
L. YLVISAKER

The publication of NUTRITION REVIEWS has been undertaken to enable professionally trained people to keep abreast of current progress, and to have available an unbiased, authoritative review of the current research literature in the science of nutrition.

The Editorial Staff has been carefully selected so that the publication will merit, in reasonable degree, the confidence of the medical profession and others who work directly with the public in the field of nutrition. The service provided by the publication is distinct from that of an abstract journal, a review for laymen, or an extensive scientific review. Since the reviews as originally prepared by a member of the Editorial Staff are frequently modified by special referees and may be further modified by the Editorial Office in preparing final copy for the press, the Editorial Committee feels that it is preferable not to affix the names of Editorial Staff members to individual reviews. There is thus a high degree of group responsibility on the part of the Editor and Associate Editors.

Signed articles do not necessarily represent the opinion of the Editorial Staff.

CONTENTS OF VOLUME 19

No. 1, January 1961

Nutrition: The Forgotten Art, by DANIEL B. STONE 1
Use of Anabolic Hormones as Growth Stimulants 2
Zinc Metabolism in Laennec's Cirrhosis 4
Dietary Studies in Epidemiological Surveys 6
Xanthurenic Acid Excretion Resulting from Hydrazides 8
Effects of Meal Eating Versus Nibbling on Body Composition 9
Copper Toxicity in Kidneys 11
Influence of the Intestinal Flora on the Growth Rate of Mice 12
Irradiated Beef and Vitamin K 14
Absorption of Amino Acids 16
Fat Deficiency and Pituitary-Gonad Relationships 17
Vitamin E Deficiency in the Guinea Pig 20
Thiamine and Liver Lipids 21
Inhibition of Cortisol-Induced Gluconeogenesis by Pyridoxine Deficiency 22
Restriction of Food or Water and Work Output 23
Dietary Fats and Atherosclerosis in Chickens 25
Iron Enzymes in Iron Deficiency 27
Necrotizing Cardiopathy Associated with Chloride Deficiency 28
Copper Deficiency and Reproductive Failure 29
Letter to the Editor 31
American Board of Nutrition Announcement 31
Blood Serum Proteins of the Hippopotamus 31
Recent Books 32

No. 2, February 1961

Comments on the Current Food Situation, by ORIS V. WELLS 33
Dietary Management of Congestive Heart Failure, Hypertension and Angina Pectoris 35
Obesity, Growth, and Maturation in Childhood 36
Myocardial Infarction in Patients with Portal Cirrhosis 37
Magnesium Metabolism in Protein Malnutrition 38
Fat Mobilizing and Ketogenic Substances in Urine 39
Multiple Origins of Muscular Dystrophy in Lambs 41
Exercise and Calcium Utilization 42
Starvation and Lactic Dehydrogenase 44
Effects of Diet and Age on Intestinal Flora in the Pig 47
Drugs Which Induce Ascorbic Acid Synthesis in Rats 48
Substances Influencing the Arginine Requirement 49
Vitamin E-Free Diets in Chicks 52
Fat Absorption and Utilization in Tumor-Bearing Rats 53
Physical Activity and Experimental Dietary Atherosclerosis 55
Hypertension and Salt Aversion 57
Mechanism of the Thiamine-Sparing Action of Dietary Penicillin in Rats 60
Essential Fatty Acid Activity of Trans Acids 62
Letter to the Editor 63
Methoxychlor—Not a Milk Residue Problem 63

No. 3, March 1961

Why Is Science Important? by WARREN WEAVER 65
Amino Acid Excretion in Infants and Children 68
Effects of Animal Versus Vegetable Protein on Serum Lipids of Man 70
I^{131} Fat-Pancreatin Test for Steatorrhea 71
Malabsorptive Syndrome Induced by Neomycin 72
Pemmican 73
Toxicity of Vitamin K Substitutes in Premature Infants 75
Chlorpromazine Tranquilization Does Not Increase Milk Production 77
Lysine and the Absorption of Calcium 78

Relation of Pantothenic Acid to Adrenal Cortical Function ... 79
Copper in Cytochrome C Oxidase ... 80
Body Fat and Lactose Feeding ... 82
Experimental Hemochromatosis ... 83
Cobamide Coenzymes ... 85
Vitamin B_6 Deficiency and Urinary Oxalate ... 88
Beta-Glucuronidase and Atherosclerosis ... 90
Relation of Vitamin A to Mucopolysaccharide Formation ... 91
Dietary Magnesium and Experimental Atherosclerosis in Rats ... 92
Life Span and Pathology of Rats Maintained at 6°C and 30°C ... 95
Radioactive Cholesterol Labelling of Serum Lipoproteins ... 95
Citral, Vitamin A, and Glaucoma ... 96

No. 4, April 1961

Activities of the Food and Nutrition Board, 1960, by LeRoy Voris ... 97
Spontaneous Variations in Serum Lipids and Cholesterol ... 100
Levels of Vitamins A and E in Human Blood ... 101
Growth Hormone Studies in Man ... 103
Bitot's Spots ... 104
Hereditary and Infectious Components of Tooth Decay ... 105
Atherosclerosis in Miniature Pigs ... 108
Sex Differences in Susceptibility to Vitamin K Deficiency ... 110
Zinc Deficiency in Chicks ... 111
Dietary Protein and Acetate-1-C^{14} Incorporation ... 113
Fatty Acid Uptake by Skeletal Muscle ... 115
Antibody Formation by Vitamin Deficient Rats ... 116
Linoleic Ester and Cholesterol ... 117
Kwashiorkor and Plant Proteins ... 118
Pyridoxine and Transaminases ... 120
Vitamin B_6 and B_{12} Relationships ... 122
Injury, Growth, and Nitrogen Balance ... 123
Fluoride Content of Skeletal Tissues ... 124
Liver Enzymes in Glycogen Storage Disease ... 127
Fatty Acid Chain Length and Essential Fatty Acid Deficiency ... 127
Recent Books ... 128

No. 5, May 1961

Nutritional Research in the Soviet Union. Part I: Some General Aspects, by Josef Brožek ... 129
Relation Between Hardness of Water and Cardiovascular Disease ... 132
Copper Elimination Treatment of Hepatolenticular Degeneration ... 133
Total Body Fat Determined by Potassium-40 Content ... 134
Prognosis in the Infantile Hypercalcemic Syndrome ... 135
Unesterified Fatty Acid Levels in Neoplastic Disease ... 137
Rare Malabsorption Syndromes ... 138
Dental Effects of Fluorine Ingested by Bovines ... 139
Vitamin D and Milk Fever Prevention ... 141
Fish and Unavailable Iron ... 143
Toxic Waterbloom (Algae) ... 145
Assay and Biopotency of Alpha-Tocopherols ... 146
Malformations in Zinc-Deficient Chick Embryos ... 148
Blood Alterations in Vitamin B_6-Deficient, Pregnant Rats ... 149
Starvation Ulcers ... 151
Bone Sodium ... 152
Vitamin E and Erythrocyte Life-Span ... 154
Starvation and Body Composition ... 155
Pantothenic Acid Deficiency in Guinea Pigs ... 156
Blood Ketones During Hemorrhagic Shock ... 158

Hypervitaminosis D ... 158
The Daily Dose of Folacin ... 159
Letter to the Editor ... 160
Recent Book ... 160

No. 6, June 1961

Nutritional Research in the Soviet Union. Part II: Some Specific Aspects, by JOSEF BROŽEK ... 161
Strontium-90 in the British Diet ... 164
Relation of Endemic Goiter to Thyroid Carcinoma and Thyrotoxicosis ... 166
Tocopherol Deficiency in Infancy and Childhood ... 168
Selenium, Transaminase and White Muscle Disease in Lambs ... 169
Major Factors Influencing Forage Value in Dairy Cattle ... 170
Evaluation of Vitamin A Status of Animals ... 172
Hormonal Effects of Tryptophan Metabolism ... 174
Milk and Egg Supplementation of Rice ... 175
Intrinsic Factor and Absorption of Vitamin B_{12} ... 177
Magnesium Requirement of Rats ... 178
Interrelation of Aortic and Coronary Arterial Hypertension with Dietary-Induced Hypercholesteremia on Atherosclerosis in Dogs ... 179
Hypothalamic Stimulation and Feeding Behavior ... 182
Endogenous Formation of Cholesterol on a Fat-Free Diet ... 184
Glutamic Acid and Growth ... 186
Fasting Ketosis in Pregnant Animals ... 187
A Fat Soluble Material in Alfalfa Which Reduces Availability of Dietary Tocopherol ... 189
Heart Disease in Algeria ... 191
Nitrogen Fixation by Nonleguminous Plants ... 191
Letter to the Editor ... 192
Recent Books ... 192

No. 7, July 1961

Heights and Weights of Adults in the United States, by MILICENT L. HATHAWAY ... 193
Iron Deficiency in Prematurely Born Infants ... 195
Bone Density and Fluoride Ingestion ... 198
Clearance of Vitamin B_{12} from Plasma ... 200
The Drug-Management-of-Obesity Controversy ... 202
Exercise and Blood Ammonia Levels in Man ... 206
Clearance of Intravenous Fat ... 207
Reduction of Serum Cholesterol by Tetraiodothyroformic Acid ... 209
Obesity in Childhood and Adulthood ... 211
Effects of Vitamin E and Cod Liver Oil on Magnesium-Deficient Calves ... 212
Eating Habits and Atherosclerosis ... 213
Atherogenic Diets in Diabetics ... 216
Antioxidant Replacements for Vitamin E ... 217
Ubiquinone in Vitamin A Deficiency ... 218
Physical Activity and Myocardial Infarction ... 221
A Hypothalamic Fat Center ... 222
Vitamin B_6 Content of Infant Foods ... 223
Recent Books ... 224

No. 8, August 1961

Nutrition and Genes in the Domestic Fowl, by F. B. HUTT ... 225
Food Additives ... 227
Vitamin B_6-Dependency State in Infants ... 229
Electron Microscopic Studies in Whipple's Disease ... 230
Total Body Water in Malnourished Infants ... 232
Results of Treatment in Phenylketonuria ... 234
Protein Losing Enteropathy ... 236

Radio Toxicity of Iodine^{131} in Dairy Cattle 237
Bound Niacin 240
Potassium Deficiency and the Kidney 242
Long-Term Feeding of Fats and Atherosclerosis in Chicks 244
Dietary Components and Accumulation of Radionuclides in the Body 245
Accelerated Growth of Rats 247
Regulation of Cholesterol Metabolism with Thyroxine Analogues 250
Lowering of Serum Cholesterol by an Adephenine Derivative 251
Radionuclides, Calcium, and Potassium in Milk 253
Blood Saccharoids 254
Environmental Temperatures and Urinary Metabolites of Noradrenaline 255
Recent Books 256

No. 9, September 1961

Anomalies in the Prediction of Nutritional Disease, by ALEXANDER R. P. WALKER 257
Metabolism of Fluorides 259
Reduction of Serum Cholesterol Concentration by Triparanol 262
Phenylketonuria 264
Body Composition of Infants Born to Diabetic Mothers 266
Alcoholic Cardiomyopathy 268
Calcium Metabolism in Osteoporosis 269
Muscle Composition in Kwashiorkor 272
Relationship Between Thyroid Hormone and Vitamin B_{12} 274
The Effect of Linoleic Acid on Depot Fat 275
Fatty Acid Analysis of Lipid Fractions 276
Ascorbic Acid Requirement of Guinea Pigs 278
Nicotinic Acid and Starvation Hypercholesteremia 280
Anemia, Polycythemia, and Lipid Deposition 281
Coenzyme B_{12} in Liver 283
Prolonged Protein Depletion 285
The Effect of Insulin on Hepatic Glucose Output in Man 286
Catalog of Films and Filmstrips on Food and Nutrition 287
Announcement 288

No. 10, October 1961

Weight Reduction and Its Significance, by ROBERT E. SHANK 289
Effects of Cholestyramine, A Bile Acid Sequestering Exchange Resin 292
Dietary Cholesterol and Serum Lipids in Man 293
Parenteral Fluid Therapy in Infantile Diarrhea 296
Diverticulosis of the Jejunum with Macrocytic Anemia and Steatorrhea 299
Absorption and Utilization of Nutrients in Man After Total Gastrectomy 300
Zinc Requirements of Poultry 302
Nutrition, Health, and Longevity 305
Renal Stones, Magnesium, and Vitamin B_6 in Rats 306
Composition of Milk 308
Reduction of Serum and Liver Cholesterol with Pectin 309
Nutrition, Tooth Size, and Caries Susceptibility 311
Fatty Acid Chain Length and Metabolic Rate 314
Impaired Antibody Production in Pyridoxine Deficient Guinea Pigs 315
Antibiotic-Containing Foods and Animal Experimentation 317
Vitamin A Toxicity in Whale Liver 318
Liver Regeneration After Partial Hepatectomy in Cirrhotic Rats 319
Recent Books 320

No. 11, November 1961

Who Is Well Nourished? by STANLEY N. GERSHOFF 321
Kwashiorkor in Cape Town 324

Treatment of Hypercholesterolemia with Nicotinic Acid 325
Diet and Atherosclerosis in London Busmen 328
Effect of Excessive Calcium on Selenium 75 Utilization in Swine 330
Sodium Chloride and Myocardial Infarcts in Rats 331
Dietary Fats and Atherosclerosis and Thrombosis in the Rat 333
Intestinal Conversion of C^{14}-Carotene to Vitamin A 334
Fatty Acids and Riboflavin in the Metabolism of Vitamin B_6 336
Experimental Atherosclerosis in Dogs with Aortic Grafts 338
Cadmium, A Possible Dietary Essential 340
Effect of Excessive Lysine and Leucine Intakes on the Pregnant Rat 342
Vitamin A and Proteins in Blood and Liver 344
Pathologic and Physiologic Studies in Canine Atherosclerosis 346
Trivalent Chromium and Glucose Tolerance 348
Letter to the Editor 350
Chemicals in Food 351
Dietary Treatment of Familial Mediterranean Fever 352
Recent Books 352

No. 12, December 1961

Nutritional Problems of Children, by CLEMENT A. SMITH 353
Author Index 357
Subject Index 365

BOARD OF TRUSTEES

W. Gardner Barker, *President, Thomas J. Lipton, Inc.*

Lee S. Bickmore, *President, National Biscuit Company*

*Claude T. Bissell, *President, University of Toronto*

*F. G. Boudreau, *President, Milbank Memorial Fund*

William T. Brady, *Chairman, Corn Products Company*

Charles S. Bridges, *President, Libby, McNeill & Libby*

G. Buitoni, *President, Buitoni Foods Corp.*

*Leroy E. Burney, *Vice President for Health Services, Temple University*

Thomas P. Carney, *Vice President, Research, Development & Control, Eli Lilly and Company*

Harold W. Comfort, *President, The Borden Company*

Herbert C. Cornuelle, *Pres., Dole Corp.*

W. T. Crighton, *General Manager, Producers Creamery Company*

Wesley M. Dixon, *Chairman and President, Container Corporation of America*

*Lee A. DuBridge, *President, California Institute of Technology*

Joseph Eichberg, *President, American Lecithin Co., Inc.*

*Conrad A. Elvehjem, *President, University of Wisconsin*

Thomas C. Fogarty, *President, Continental Can Co., Inc.*

Edgar J. Forio, *Senior Vice President, The Coca-Cola Company*

*Clarence Francis, *New York, New York*

T. R. Gamble, *President, Pet Milk Company*

Daniel F. Gerber, *President, Gerber Products Co., Vice Chairman, Executive Committee, The Nutrition Foundation, Inc.*

George A. Graham, *Secretary Treasurer, Charles B. Knox Gelatine Co., Inc.*

John A. Grammer, *Executive Vice President, Beech-Nut Life Savers, Inc.*

Henry J. Heinz, II, *Chairman, H. J. Heinz Co.*

*Rev. Theodore M. Hesburgh, C.S.C., *President, University of Notre Dame*

Frank C. Hildebrand, *Vice President, General Mills, Inc.*

*Herman E. Hilleboe, *Commissioner of Health, State of New York*

S. F. Hinkle, *President, Hershey Chocolate Corporation*

Porter M. Jarvis, *President, Swift & Company*

*James R. Killian, Jr., *Chairman, Massachusetts Institute of Technology, Chairman of Board of Trustees, The Nutrition Foundation, Inc.*

*Charles Glen King, *President, The Nutrition Foundation, Inc.*

*Grayson L. Kirk, *President, Columbia University*

R. Newton Laughlin, *President, Continental Baking Co.*

J. Preston Levis, *Chairman, Owens-Illinois*

David M. Levitt, *President, DCA Food Industries, Inc.*

R. G. Lucks, *President, California Packing Corp.*

W. F. McLean, *President, Canada Packers, Limited*

William H. McLean, *President of Chemical Division, Merck & Co., Inc.*

Oscar Mayer, *Chairman of the Board, Oscar Mayer & Co.*

Charles G. Mortimer, *Chairman, General Foods Corporation; Chairman, Executive Committee, The Nutrition Foundation, Inc.*

Milton C. Mumford, *President, Lever Brothers Co.*

W. B. Murphy, *President, Campbell Soup Co.*

William F. Oliver, *President, The American Sugar Refining Company*

W. W. Paddon, *President, Sunshine Biscuits, Inc.*

*Thomas Parran, *University of Pittsburgh*

*Maurice Pate, *Executive Director, United Nations Childrens Fund*

Philip W. Pillsbury, *Chairman, The Pillsbury Company*

J. G. Pleasants, *Vice-President in charge of Research and Development, The Procter & Gamble Company*

Lloyd E. Rigler, *President, Adolph's, Ltd.*

Lyle C. Roll, *President, Kellogg Company*

R. T. Ryan, *Executive Vice President, Welch Grape Juice Co., Inc.*

Elbert M. Shelton, *Secretary, The Baker Laboratories, Inc.*

Vernon Stouffer, *President, The Stouffer Corporation*

Roy J. Sund, *President, American Can Company*

Thomas E. Sunderland, *President, United Fruit Company*

Henry Weigl, *President, Standard Brands, Incorporated*

J. Huber Wetenhall, *President, National Dairy Products Corporation*

F. R. Wilcox, *General Manager, Sunkist Growers*

E. W. Wilson, *President, Armour & Company*

R. D. L. Wirth, *President, Red Star Yeast and Products Co.*

H. J. Wolflisberg, *President, The Nestle Company, Inc.*

Horace L. Sipple, *Secretary* John Holmes, *Honorary Trustee*

---

* Representative of the public